

CLAIMS:

1. A system (1) for extracting subsea hydrocarbon fluid comprising at least three discrete subsea developments (10,12,14,16,18) for hydrocarbon extraction and a hydrocarbon receiving facility (2,4,6,8) linked by a pipeline network (94) configured to permit :
 - (a) diversion of fluid from at least one of the subsea developments selectively to one or more of the other developments; and
 - (b) conveyance of fluid from each of the subsea developments (10,12,14,16,18) to the receiving facility (2,4,6,8).
2. The system as claimed in claim 1, wherein the pipeline network (94) is also configured to permit conveyance of fluid from at least one of the subsea developments (10,12,14,16,18) to the receiving facility (2,4,6,8) selectively via at least two alternative routes.
3. The system as claimed in claim 1 or 2, including a plurality of receiving facilities (2,4,6,8), the pipeline network (94) being configured to permit conveyance of fluid from each of the subsea developments (10,12,14,16,18) to any of the receiving facilities (2,4,6,8).
4. The system as claimed in claim 1, 2 or 3, wherein the pipeline network (94) includes, between at least two of the subsea developments (10,12,14,16,18), plural pipelines suitable for respectively conveying different fluids such as hydrocarbon liquid, hydrocarbon gas and water.
5. The system as claimed in any preceding claim, including a control means (44) for controlling flows of fluids between the subsea developments (10,12,14,16,18) and between the subsea developments (10,12,14,16,18) and the or each receiving facility (2,4,6,8).

6. The system as claimed in claim 5, wherein the control means (44) includes, at least one of the subsea developments (10,12,14,16,18), a monitoring means (54,68,70,80) for monitoring parameters pertaining to that 5 subsea development.

7. The system as claimed in claim 5 or 6, wherein the control means (44) include signal processing means located at the subsea developments (10,12,14,16,18) which communicate with each other and can control, at least to 10 a limited extent, the distribution of fluids around the pipeline network (94).

8. The system as claimed in claim 5, 6 or 7, wherein the control means (44) is arranged to operate by automatically sensing what items of hardware are in use at a particular subsea development (10,12,14,16,18).

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9. The system as claimed in claim 8, wherein each item of hardware includes an electronic chip containing identification information.

10. The system as claimed in any one of claims 5 to 9, including a remote 20 input/receiving device for effecting control of the flow of said fluids.

11. The system as claimed in any one of claims 5 to 10, wherein the control means (44) also include means to calculate the best place to store or dispose of a particular fluid.

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12. The system as claimed in any preceding claim, wherein at least one of the subsea developments (10,12,14,16,18) includes separating means (60) for at least substantially separating constituent components of fluid received by the subsea development from each other.

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13. The system as claimed in any preceding claim, wherein at least one of the subsea developments (10,12,14,16,18) comprises a manifold to which pipelines of the network are connected and at least one retrievable module (22) including equipment (60) for acting on fluid received thereby and docked with 5 the manifold for fluid connection to the pipeline network (94).

14. The system as claimed in any preceding claim, including a network of power lines (96) between the subsea developments (10,12,14,16,18) and the or each receiving facility (2,4,6,8) for distributing power.

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15. The system as claimed in any preceding claim, including a network of control lines between the subsea developments (10,12,14,16,18) and the or each receiving facility (2,4,6,8) for transmitting control signals.

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16. The system as claimed in any preceding claim, including a network of chemical injection lines between the subsea developments (10,12,14,16,18) and the or each receiving facility (2,4,6,8) for conveying chemical injection fluids.

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17. A method of operating a system (1) for extracting subsea hydrocarbon fluid, the system comprising plural discrete subsea developments (10,12,14,16,18) for hydrocarbon extraction and a hydrocarbon receiving facility (2,4,6,8) linked by a pipeline network (94) and control means (44) for controlling flows of fluids between the subsea developments and between the subsea developments and the receiving facility, the control means including monitoring 25 means (54,68,70,80) for monitoring parameters pertaining to the subsea developments, the method comprising the steps of:

(i) monitoring parameters at a first subsea development and identifying a requirement for a first fluid type;

(ii) monitoring parameters at a second subsea development and 30 identifying a surplus of the first fluid type; and

(iii) operating the control means (44) to convey a quantity of the first fluid from the second to the first subsea development via the pipeline network (94).

5 18. The method as claimed in claim 17, wherein the system includes plural receiving facilities (2,4,6,8) and at least one of the subsea developments (10,12,14,16,18) includes separating means (60) for at least substantially separating constituent components of fluid received by the development (10,12,14,16,18) from each other, the method including the steps of :

10 (i) at least substantially separating fluid received by the subsea developments (10,12,14,16,18) into first and second fluid types;

(ii) conveying the first fluid type to one of the receiving facilities (2,4,6,8); and

15 (iii) conveying the second fluid type to another of the receiving facilities.